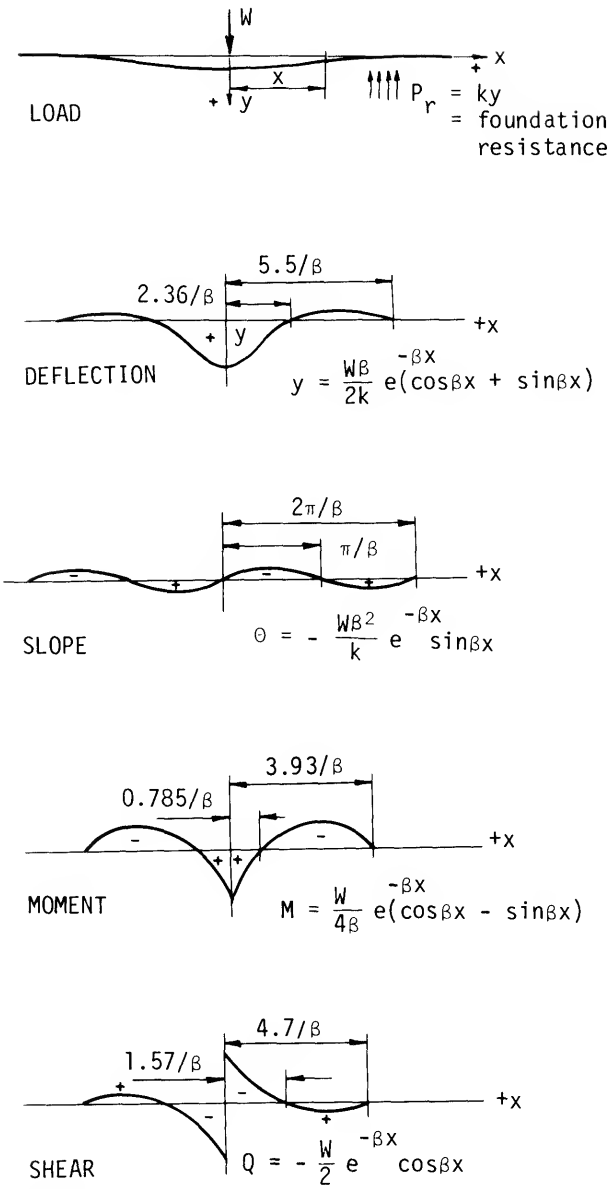

Fig. 24.5 Formulas and notation for long beams on an elastic foundation.

$$\theta_{\max} = -\frac{2\beta^2}{k}(W^* - 2\beta M_0^*) \tag{24.24}$$

To clarify some of the basic concepts and definitions of the theory of beams on elastic foundation in relation to the design analysis of shell-like components, let us first consider a portion of a cylindrical vessel subjected to edge loading as shown in Fig. 24.7. An elemental, longitudinal strip is cut out of the cylinder wall with